Section G **Harvard Bridge to Longfellow Bridge**

The reservation between the Harvard and Longfellow Bridges is one of the most trafficked in the whole Basin.

North Bank. Major improvements are planned for the path system along Memorial Drive as part of DCR's Memorial Drive Phase II project. For most of this section there will be a 10-foot, two-way, paved shared-use path adjacent to the roadway with a separated, 6-foot stabilized aggregate path along the river.

Ames Street provides a connection to Kendall Square, the Sixth Street Pedestrian Walk, and East Cambridge. On-street improvements will enhance this connection, as will a proposed pedestrian-actuated signal at the intersection with Memorial Drive. Wadsworth Street connects to Kendall Square and, when reconstructed, will connect to Third Street and East Cambridge. Improvements to this street should follow the reconstruction of the intersection at Main and Third Streets.

East of the crosswalks at Wadsworth Street, there is an existing pedestrian signal and crosswalks to facilitate access to the Longfellow Bridge. This crossing, however, is relatively far from the bridge itself. Wayfinding signage should be added to this area to direct path users to Longfellow Bridge and Main Street.

In the Spring of 2013, construction will begin to rehabilitate the Longfellow Bridge as part of MassDOT's Accelerated Bridge Program. The plans maintain the bike lanes across the bridge, adding a buffered bike lane to the outbound side and widening sidewalks. The rehabilitation will also include the widening of the path under the Longfellow Bridge along Memorial Drive (See Section H).

68. Photosimulation of the reservation adjacent to Memorial Drive showing Phase II improvements, downstream of MIT's Pierce Boathouse.

69. Photosimulation of Memorial Drive with Phase II improvements, upstream of MIT's Pierce Boathouse.

South Bank. On the Boston side of the river, there are four overpasses over Storrow Drive between the Harvard Bridge and the Longfellow Bridge. The overpasses at Fairfield Street and Dartmouth Street need better bicycle and pedestrian connections to Beacon Street. Both streets are one way for that block; however, bicycle demand is two-way. Counter-flow lanes should be considered in both directions. Further improvements to Fairfield and Dartmouth Streets will improve the connectivity to the river from the Back Bay neighborhood.

The Arthur Fielder foot bridge, built in 1953 and named after the famous Boston Pops conductor, currently provides a vital pedestrian and bicycle connection between Arlington Street and the Esplanade landscape. Nearby destinations include the Hatch Shell concert area, the Esplanade Playspace, Community Boating, an outdoor café and public bathrooms as well as access to the recreational paths along the river. The striking orange/pink curving concrete bridge spans Storrow Drive allowing people from Beacon Hill and Back Bay to access the parkland from the city any time of year.

70. On the occasion of the 2010 centennial of the Charles River Esplanade, the non-profit Esplanade Association came together with DCR and a group of volunteers, professionals, and concerned citizens to envision an ambitious future of the this beloved stretch of riverfront parkland.

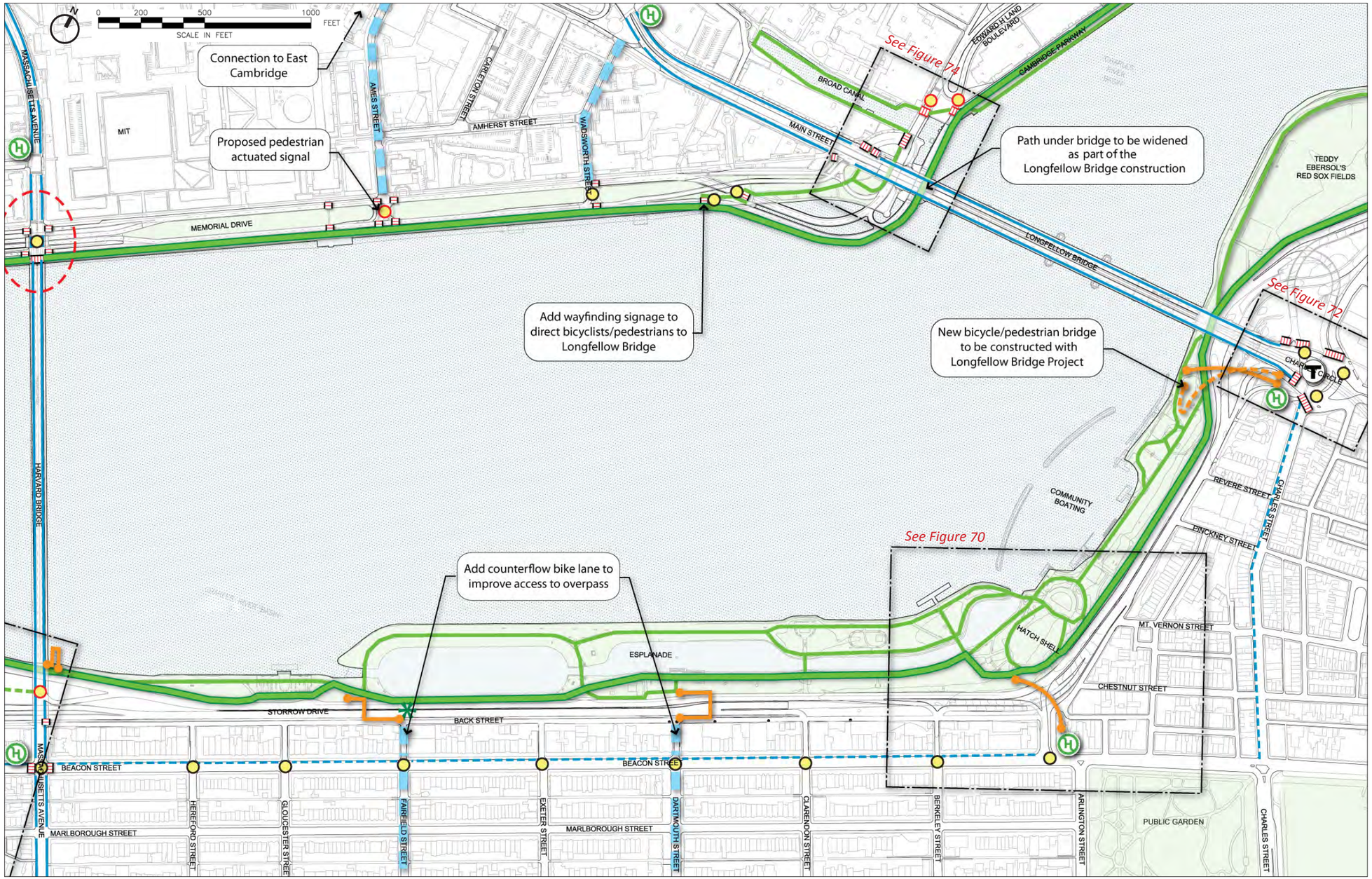
*With guiding principles for the park's future, and an extensive list of forward-looking improvements, the **Esplanade 2020 Plan** provides an excellent context for long-term planning in this area. It is available online from The Esplanade Association.*

The Connectivity Study recommendations have considered the visionary ideas of the 2020 Plan. One of the more imaginative proposals from the Plan—currently unfunded—would involve lowering Storrow Drive, enabling the creation of an at-grade crossing near the Hatch Shell, shown in the detail above.

Figure 71

Recommendations

Section G
Harvard Bridge to Longfellow Bridge



Section G **Harvard Bridge to Longfellow Bridge** continued

South Bank *continued.* The existing pedestrian overpass from Charles Circle to the Esplanade is to be replaced in conjunction with the Longfellow Bridge Reconstruction. Due to the extremely high volumes of cyclists and pedestrians that use this bridge particulary during events on the Esplanade, the width of the new bridge should be no narrower than 12 feet.

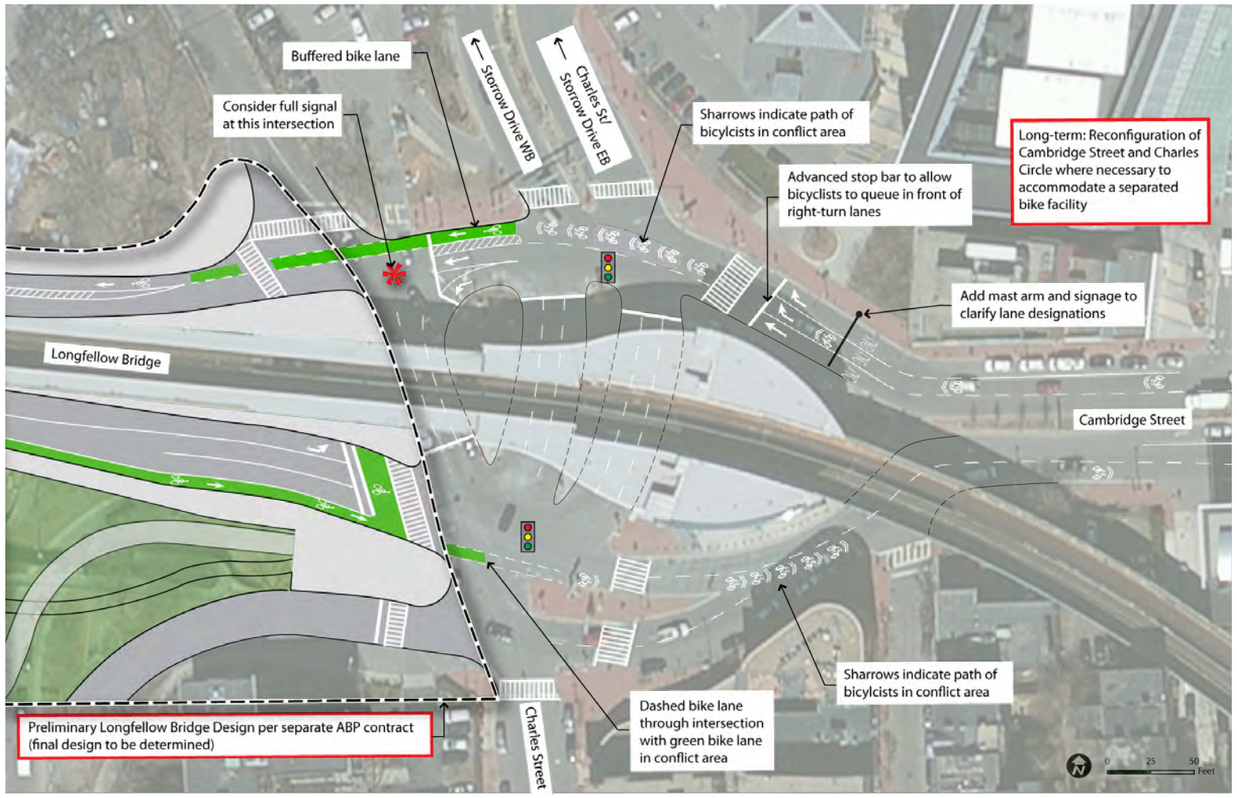
The bicycle connection through Charles Circle is critical. Currently it represents a significant barrier that nearly precludes less-experienced cyclists from bicycling to and from downtown Boston over the Longfellow Bridge.

While there are bike lanes on the Longfellow Bridge, the ***Draft Boston Bike Master Plan*** recommends shared lane markings on Cambridge Street. At Charles Circle these two facility types meet (Figure 72). For eastbound Longfellow Bridge traffic, the current design includes a wide bike box intended for queueing bicyclists traveling through to Cambridge Street or left to Charles Street or Mass. General Hospital. Green paint or thermoplastic in a dashed bike lane will also help motorists see this conflict area.

East of Charles Street, a series of tightly spaced "sharrows" can help define another conflict zone where bicyclists may conflict with motorists merging from their right.

Westbound bicyclists on Cambridge Street have difficulty traveling straight through the traffic light due to heavy volumes of right-turning motor vehicles from all three existing travel lanes. Shared lane markings or a green priority shared lane should be incorporated to encourage bicyclists to stay in the middle lane as they enter the intersection. A series of tightly spaced sharrows will help define the path of bicyclists traveling straight through this intersection. In the long term, Cambridge Street and Charles Circle should be reconfigured to accommodate a separated bicycle facility. Once bicyclists pass the Storrow Drive on-ramps, they would enter a buffered bike lane that continues to the planned buffered bike lane on the Longfellow Bridge. Green coloration helps define another conflict area where motorists turn right from Storrow Drive onto the bridge.

Full signalization of this intersection should be studied to discourage motorists from taking a "rolling stop" through the flashing red light from the Storrow Drive off-ramp.



72. Charles Circle detail plan showing an interim bicycle connection between the Longfellow Bridge and Cambridge Street.

73. Existing and proposed view of westbound Cambridge Street at Charles Circle.

Section H **Longfellow Bridge to Craigie Dam Bridge + Drawbridge**

74. Plan diagram showing connectivity improvements where the Broad Canal meets the Charles River

The paths on the Boston and Cambridge sides of the river between the Longfellow Bridge and the Craigie Dam Bridge and Drawbridge provide access to the Broad Canal, Lechemere Canal, the Museum of Science, and Teddy Ebersol's Red Sox Fields.

North Bank. The recommended connections between the Longfellow Bridge, Broad Canal, and the path are shown in Figure 74. The short ramp from First Street to the westbound lane of the Longfellow Bridge can easily include a bicycle lane. The addition of several crosswalks across First Street and Land Boulevard will connect the end of this ramp, the Broad Canal path, and the path along Cambridge Parkway. Because of the slope and short sight lines, a pedestrian-actuated signal should be incorporated at these two crosswalk locations.

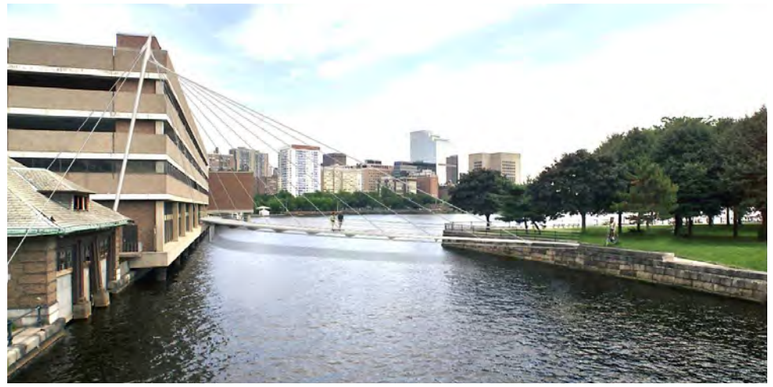
To further enhance the pedestrian connection under the bridge, the wall on the west side of First Street will be enhanced by providing openings in the granite wall. This work will be done during the rehabilitation of the Longfellow Bridge. There are existing bike lanes and a planned cycle track on Binney Street, which ends at Land Boulevard. Across the street, Front Park links to the Cambridge Parkway. A more clearly defined bicycle connection through this park will help complete the movement from Binney Street.

Other streets that provide connections to the East Cambridge neighborhood include Charles Street, which has a signalized crossing at Land Boulevard, and Thorndike Street, which connects to the path around the Lechmere Canal. This canal path links to the Charles River path; however, the connections are not ADA-compliant because of the steep slope from the river to Land Boulevard on the north side.

Currently, the primary path connects from Cambridge Parkway to Land Boulevard, over the Lechmere Canal, and along Charles River Dam Road on the downstream side of the Museum of Science. An alternate route for the path would be on the upstream side of the Museum of Science.

Two new bridges are required to make this connection. DCR consultants have completed conceptual designs for these two bridges. The first is a curved bridge (Figure 75) which will connect from the Esplanade at the north end of Cambridge Parkway over the canal to the Museum of Science parking garage. A cantilevered walkway will be necessary to connect to the existing path behind the Museum of Science. Another bridge will be necessary to cross the open lock that leads to the Craigie Drawbridge. Because of occasional boat traffic, this bridge will need to be a movable bridge (see Figure 76). These connections will create a loop around the east end of the Charles River Basin along the water's edge, without any road crossings.

In addition to this long-term vision for connectivity on the upstream side of the Museum of Science, improvements are needed to the existing connection on the downstream side. Improved crosswalks at today's Museum Way signal will enhance the connection of the path to North Point Park and the new North Bank Bridge, which links to Paul Revere Park in Charlestown. There is a long-term vision to connect the Somerville Community Path to the river in this area. This portion of the river also includes the proposed Inlet Bridge between Charles River Dam Road and North Point Park in Cambridge, and the Draw One Walkway across the river, connecting Cambridge and Boston..



75. Proposed curved bridge design by Rosales/Schlaich Bergermann, linking the path behind the Museum of Science to the North Bank. (image courtesy of DCR).

Section H **Longfellow Bridge to Craigie Dam Bridge + Drawbridge** continued

South Bank. On the Boston side of the river, the South Bank Bridge, serving cyclists and pedestrians, is planned by DCR to cross over the MBTA train tracks and connect Nashua Street Park with the new Charles River Dam.

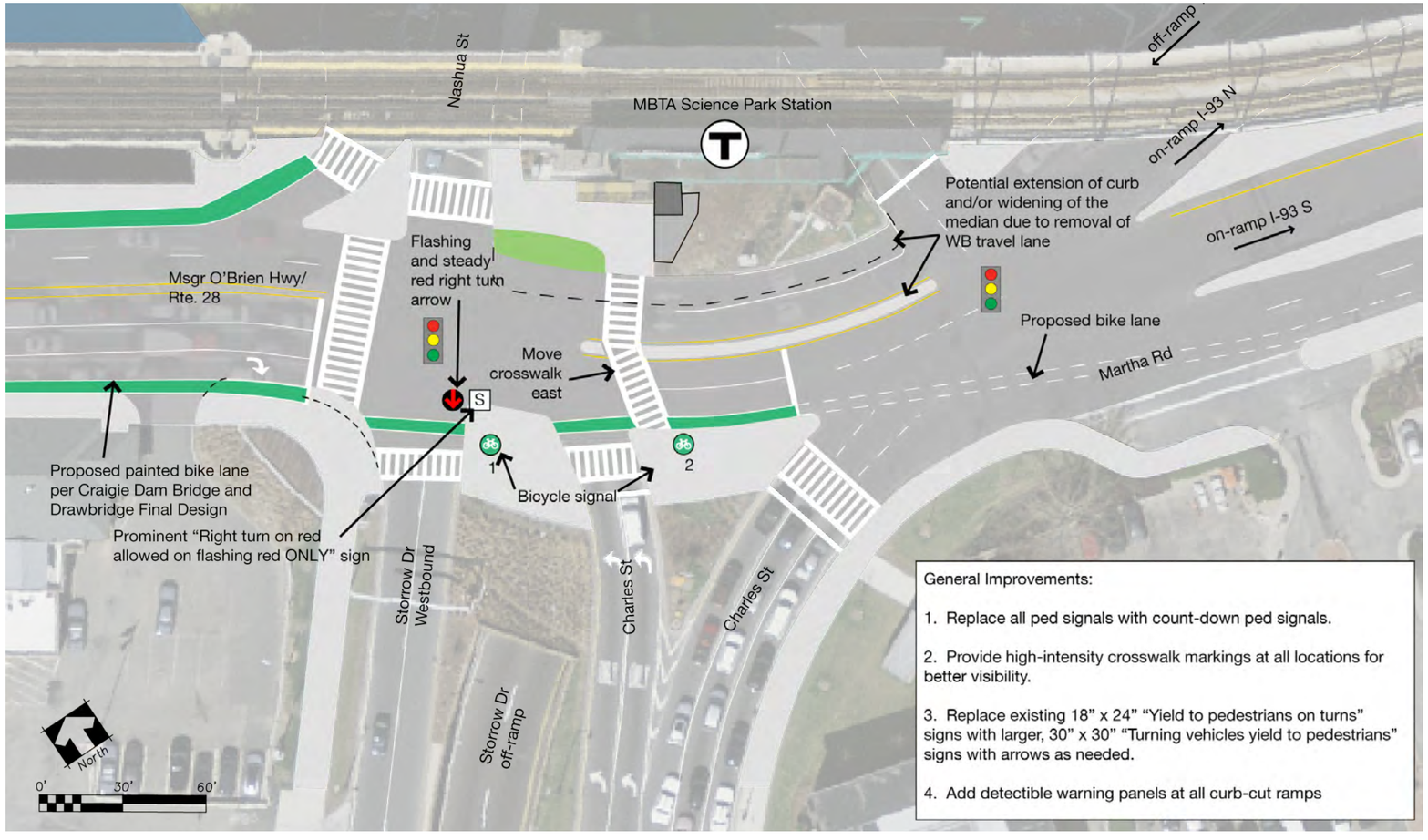
MassDOT has committed to reconstruct the pedestrian overpass at Leverett Circle, which will link the MBTA station to the east- and westbound walkways along Storrow Drive. At-grade improvements will help bicyclists and pedestrians navigate this complex intersection. The planned bike lanes on the O'Brien Highway should extend through Leverett Circle. Bike signals and an alternating flashing/steady red right turn arrow will mediate the conflict between eastbound bicyclists and right-turning motorists.

If a flashing red arrow cannot be accommodated with the existing signal equipment, then a permanent "No Right Turn on Red" sign, with hour restrictions, should be installed. The addition of a crosswalk from a traffic island to the MBTA station will satisfy an existing pedestrian desire line while avoiding conflict with vehicles from Nashua Street. These improvements were developed by the Connectivity Study team for MassDOT in the ***Leverett Circle Pedestrian + Bicycle Crossing Study*** (2011).*

Both Martha Road and Nashua Street are important links between North Station and the Charles River Reservation. Bicycle facilities are recommended for both streets. Further study is needed to determine if a lane reduction and the addition of bike lanes is appropriate on Nashua Street. Currently the ***Draft Boston Bike Master Plan*** recommends shared lane markings along Martha Road and Naushua Street. Additionally, the path connection to the west side of North Station is not well defined. Pavement markings and wayfinding signage directing bicyclists from Martha Road will improve this connection. Bicyclists leaving North Station via Nashua Street will benefit from the addition of a stop sign for cars exiting the underground parking garage.

* http://www.massdot.state.ma.us/portals/0/docs/infoCenter/docs_materials/Leverett_report.pdf

76. Proposed movable bridge by Rosales/Schlaich Bergermann at the lock on the South Bank (courtesy DCR)



77. In addition to the proposed pedestrian overpass at Leverett Circle, some at-grade intersection improvements can be made to enhance pedestrian/bicycle connections to the T station and the West End neighborhood.

Figure 78

Recommendations

Section H
Harvard Bridge to Craigie Dam Bridge + Drawbridge

Legend

- Existing crosswalk, no improvements needed
- Existing crosswalk, needs improvement
- Proposed crosswalk
- Existing/funded signal
- Proposed signal
- Existing ped bridge/overpass
- Proposed ped bridge/overpass
- Existing Hubway station
- Existing/funded bike lane/cycle track
- Proposed bike lane/cycle track
- Existing/funded multi-use path/sidewalk (primary)
- Existing/funded multi-use path/sidewalk (secondary)
- Proposed multi-use path
- New path/landscaping/reduced lanes
- Proposed bike/ped and street-scape improvements within ROW
- Reconfiguration of intersection recommended
- Entry node to the river with art, seating, lighting, landscape elements and small plaza features